

Claims

- [001] A method for processing a queue of messages, each message representing at least one request for an update to a database, the method comprising the steps of: browsing a message; extracting from a browsed message an update request; and sending a pretend update request to a database management system (DBMS) responsible for the database which is to be updated, the pretend update request comprising an indication which indicates that the DBMS should not execute the update but should prefetch data that will be required when a corresponding real update is requested.
- [002] The method of claim 1 comprising the step of: translating the pretend update request into a prefetch request; and prefetching required data.
- [003] The method of claim 1 comprising the step of: initiating a real update request by destructively getting a message comprising the update request, the real update request using prefetched data.
- [004] The method of claim 3, wherein a master thread performs the step of initiating a real update request and wherein one or more read ahead threads perform the step of browsing a message.
- [005] The method of claim 4, comprising the step of: maintaining the master thread at a predetermined processing amount behind a read ahead thread.
- [006] The method of claim 2 wherein the prefetch request is in a predetermined form, the method further comprising the step of: retaining the predetermined form; associating an identifier with the retained predetermined form in order that the retained predetermined form can be identified and used in subsequent performance of the real update request; and returning the identifier in response to the pretend update request.
- [007] The method of claim 1, wherein the pretend update is translated into a prefetch request in a predetermined form and associated with an identifier by the DBMS, the method comprising the step of: receiving the identifier from the DBMS; and issuing a real update request by sending the identifier with the update request.
- [008] The method of claim 1 comprising the step of: informing a memory manager that the prefetched data used may be discarded from memory.
- [009] A method for pre-processing at a database management system (DBMS) update requests to database controlled by the DBMS, the method comprising: receiving an update request at the DBMS; receiving an indication at the DBMS indicating that the update request is a pretend update request and consequently that the DBMS should not execute the update but should prefetch data that will be required when a corresponding real update is requested; translating the pretend

update request into a prefetch request; and prefetching required data based on the prefetch request.

[010] The method of claim 9 comprising the step of: receiving a real update request; and using already prefetched data to execute the real update request.

[011] The method of claim 9 wherein the prefetch request is in a predetermined form, the method further comprising the steps of: retaining the predetermined form; associating an identifier with the retained predetermined form in order that the retained predetermined form can be identified and used in subsequent performance of the real update request; and returning the identifier in response to the pretend update request.

[012] The method of claim 11 comprising the step of: receiving the identifier with a real update request; using the predetermined form associated with the identifier in performance of the real update request.

[013] The method of claim 9 comprising the step of: informing a memory manager that the prefetched data used may be discarded from memory.

[014] Apparatus for processing a queue of messages, each message representing at least one request for an update to a database, the apparatus comprising: means for browsing a message; means for extracting from a browsed message an update request; and means for sending a pretend update request to a database management system (DBMS) responsible for the database which is to be updated, the pretend update request comprising an indication which indicates that the DBMS should not execute the update but should prefetch data that will be required when a corresponding real update is requested.

[015] A computer program for processing a queue of messages, each message representing at least one request for an update to a database, the computer program comprising program code means adapted to perform, when executed on a computer, a method comprising the steps of: browsing a message; extracting from a browsed message an update request; and sending a pretend update request to a database management system (DBMS) responsible for the database which is to be updated, the pretend update request comprising an indication which indicates that the DBMS should not execute the update but should prefetch data that will be required when a corresponding real update is requested.

[016] A computer program for pre-processing at a database management system (DBMS) of update requests to database controlled by the DBMS, the computer program comprising program code means adapted to perform, when executed on a computer, the method steps of: receiving an update request at the DBMS; receiving an indication at the DBMS indicating that the update request is a pretend update request and consequently that the DBMS should not execute the

update but should prefetch data that will be required when a corresponding real update is requested; translating the pretend update request into a prefetch request; and prefetching required data based on the prefetch request.